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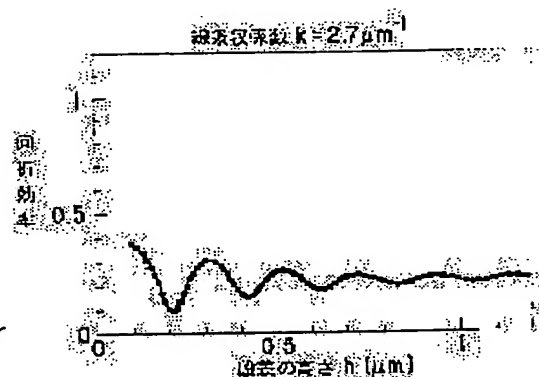
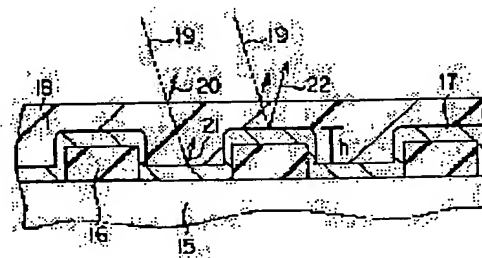
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(54) ALIGNMENT MARK AND ITS MANUFACTURE, AND EXPOSURE METHOD USING THE ALIGNMENT MARK AND SEMICONDUCTOR DEVICE MANUFACTURED BY USING THE EXPOSURE DEVICE

(57)Abstract:

PURPOSE: To increase S/N of an alignment detection signal by providing either a projecting part or a recessed part of a step part with an optical absorption layer which absorbs light of a wavelength region of a part of alignment light cast on an alignment mark region which is made to remain further much.

CONSTITUTION: An alignment mark 16 consisting of a silicon oxide film, etc., is formed on a substrate 15 with a step. A metallic film 17 such as aluminum is formed in a recessed part and a projecting part of a step part. A dyed resist layer 18 whose linear absorption coefficient (k) to alignment light is $2.7\mu\text{m}^{-1}$, for example, is laminated on the metallic film. Alignment light 19 injected to such a substrate with a resist layer on a surface is divided into partial light 20 which reflects in a surface of the dyed resist layer 18 and partial lights 21 and 22 which reflect in an interface of the aluminum film 17 after their intensity attenuates in a dyed resist layer and attenuate their intensity again in dyed resist.

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